



ECHO ECOLOGY

Bat Survey Report

Site: 25 St Martins Approach,
Ruislip
Middlesex
HA4 7QB

Client: Ms D Rana & Mr H Sandhu

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Quality Assurance

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Site assessments / surveys (where required) have been restricted to a level of detail required to achieve the stated objectives of the work.

Due to the temporal nature of ecology, the findings of this report should not be relied upon if a significant amount of time has passed, as defined by the Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines.

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1.0 Introduction and Aims

1.1 This report presents the findings of the bat surveys undertaken at 25 St Martins Approach, Ruislip, Middlesex, HA4 7QB ('the Site').

1.2 The proposed development requires the modification of the residential building on site. As such, bat surveys of the building which has features with the potential to support roosting bats were required. The aims of this survey and report are to:

- To identify and record the presence of, or potential for, protected or notable species;
- To make an ecological assessment and highlight potential ecological constraints;
- To outline any further survey work and potential protected species requirements if relevant; and
- To make suggestions and recommendations for mitigation and compensation, if required and where appropriate.

1.3 This report presents the findings and recommendations from the bat surveys including the preliminary roost assessment and bat emergence surveys.

Proposed Development

1.4 The proposals are for the erection of a single-story side extension, a first-floor rear extension, two-story front extension, erection of a rear dormer, conversion of garage to habitable use, alterations the front, side and rear elevations; and addition of a front porch. ('the Proposed Development').

Site Description

1.5 The site is approximately 0.06 ha in size and consisted of developed land; sealed surface, predominantly in the form of a driveway and single residential building (Building 1). To the east and west of the site was modified grass lawn and ornamental planting associated with a residential garden.

1.6 The site is located in the urban area of Ruislip, surrounded by residential development, Manor House Farm and gardens are located to the west of the site and the River Pinn is located c.0.1km to the north.

Legislation

1.7 All UK bat species are protected under European and UK law (Conservation of Species and Habitats Regulations (CSHR) 2017 (as amended); Wildlife and Countryside Act (WCA) 1981 (as amended)). Some are also Natural Environment and Rural Communities (NERC) Act 2006 /UK Biodiversity Action Plan (UK BAP) priority species and local BAP species. Protected and NERC/UK BAP/local BAP species are a material consideration under the NPPF (MHCLG, 2024).

1.8 Please note that this has not been prepared by a qualified legal professional and therefore should not be relied upon.

2.0 Methods

Preliminary Bat Roost Assessment

- 2.1** An assessment of the sites suitability to support roosting, foraging and commuting bats was undertaken by Design Group 3 in January 2025, with an update to this survey conducted in March 2025. On the update visit two common pipistrelles *Pipistrellus pipistrellus* were observed roosting between a timber joist and the brick wall of a ground floor room to the east of the building.
- 2.2** Echo Ecology was commissioned by to undertake a Preliminary Roost Assessment (PRA) of the site and to conduct follow up emergence surveys in April 2025. The building (Building 1) was inspected for roosting bats and the surrounding habitats assessed for their suitability for foraging and commuting bats in accordance with current guidelines (Collins, 2023).
- 2.3** The survey was conducted on 9th May 2025, by Natural England bat licence holder Pete Scott-Norris BSc (Hons) ACIEEM (ref: 2021-10106-CL18-BAT). The weather conditions were considered suitable for the PRA to be conducted.
- 2.4** An external assessment of likely access points for bats and likely internal and external roost locations were searched for using high powered torches, binoculars and inspection cameras. Ladders were also used for access where required so a full and comprehensive inspection of features could be completed to determine the suitability of individual potential roosting features.

Dusk Emergence Surveys

- 2.5** Given that evidence of roosting bats had been confirmed within the building three dusk emergence survey visit were conducted as per current guidance (Collins, 2023) to characterise the roost. The building was subject to three survey visits spread three weeks apart in May and June 2025 to complete the assessment in accordance with guidance.
- 2.6** Surveys were led by Director Pete Scott-Norris BSc (Hons) ACIEEM who holds a Class 2 Natural England Bat Licence (2021-10106- CL18-BAT) with assistance from suitably experienced ecologists.
- 2.7** Dusk emergence surveys commenced 15 minutes prior to sunset and continued for approximately 1.5 to 2 hours after sunset. Surveyors maintained static positions around the buildings, focusing their attention on features that could potentially be utilised by roosting bats and watching closely for any emergences, while also recording activity incidentally observed in the immediate surroundings.
- 2.8** Surveyors used Echometer Touch 2 Pro bat detectors to record bat activity. Calls were subsequently analysed using Kaleidoscope computer software.
- 2.9** Night vision aids were used to record any potential bat emergences, devices used were one Panasonic VX980 and one Canon XA11/15. All cameras included native infra-red capabilities and were each supported by three Nightfox infra-red floodlight illuminators. Video footage was reviewed in real time after the surveys to check for activity.

2.10 All surveys were undertaken with good weather conditions (avoiding strong winds, cold temperatures and heavy rainfall), in accordance with current guidance (Collins, 2023).

Constraints

2.11 The bat surveys were completed with the assistance of bat detectors. Surveys using bat detectors have an advantage over other methodologies (such as radio tracking or trapping) in that they are ‘non- intrusive’ and will therefore not have an adverse effect on the conservation status or welfare of bats. However, all survey techniques for bats are subject to bias and bat detector surveys may under-record species with weak echolocation calls, such as brown long-eared bats. Bats from the *Myotis* genus can be difficult to identify to species from call structure alone (Russ, 2012).

2.12 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.

2.13 The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for approximately two years, notwithstanding any considerable changes to the site conditions (CIEEM, 2018).

2.14 Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by Echo Ecology for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

3.0 Results

Preliminary Bat Roost Assessment

3.1 The PRA concluded that the main dwelling had roosting features of **low** value as per current guidance (Collins, 2023) within cracks within the brick work, gaps between joists and walls and gaps between timbers and the exposed roof tiles. Results are summarised in Table 1 below.

Table 1. Bat Roost Assessment Results

Building number	Description	Potential bat access points	Potential roost locations	Evidence of bats	Suitability
B1	Residential house, brick construction with concrete plain roof tiles. Property undergoing extensive refurbishment with no rear walls on ground floor and open roof to the rear.	The rear of the property is open exposing the entire interior.	1. Small cracks and gaps in brick work/missing mortar on west elevation internal/external walls, suitable for low numbers of bats 2. Gaps between floor joists and brick walls on ground floor ceilings. Features exposed, suitable for low numbers of bats. 3. Gaps between brick work and block work on external walls. Suitable for low numbers of bats 4. Missing/broken roof tiles, suitable for individual bats. No access to loft void. 5. Loft void is exposed and not considered suitable for roosting bats.	Droppings identified on ground floor east room in corner where common pipistrelles were previously observed.	Given the potential roosting features are only considered suitable for low numbers of roosting bats the overall suitability of the building is considered to be 'Low'.

Dusk Emergence Surveys

3.2 Dusk emergence surveys were undertaken upon the residential building in May and June 2025. One soprano pipistrelle *Pipistrellus pygmaeus* bat was recorded emerging from the building during these surveys. Results are summarised in Table 2 below. Photographs are provided in Appendix 4 and maps showing the locations of roosts are provided in Appendix 3.

Table 2. Dates, timings and weather conditions for dusk emergence surveys

Visit	Survey date	Survey type	Timings	Weather conditions	Findings
Visit 1	09/05/25	Dusk	Start: 2023 Sunset: 2038 End: 2208	17°C, Dry, 0% cloud cover, BF 1	One single soprano pipistrelle emergence from brickwork next to steel beam west side of house at 20:49.
Visit 2	04/06/25	Dusk	Start: 2058 Sunset: 2113 End: 2243	18°C, very light rain for 5mins at 2145 otherwise dry, 90% cloud cover, BF 1	No bats seen emerging from building.
Visit 3	25/06/25	Dusk	Start: 2108 Sunset: 2123 End: 2253	22°C, Dry, 80% cloud cover, BF 0	No bats seen emerging from building.

Internal Building Inspection

3.3 Detailed internal inspections were undertaken on the 9th May 2025, 4th June 2025 and 25th June 2025 before the emergence surveys. The internal inspections are summarised in Table 3 below.

Table 3. Summary of detailed internal inspection

Visit	Survey date	Findings
Visit 1	09/05/25	20-30 bat droppings were identified on the ground floor of the east room, below the previously recorded common pipistrelle day roost. No other droppings were or evidence of roosting bats was identified.
Visit 2	04/06/25	An inspection camera was used by bat licenced ecologist Pete Scott-Norris to inspect the roost location of the soprano pipistrelle roost that was identified on the first emergence survey visit. This inspection identified five bat droppings within the cracked brickwork. No additional evidence of roosting bats was identified within the building.
Visit 3	25/06/25	No additional evidence of roosting bats was identified within the building.

Summary

3.4 25 St Martins Approach (Building 1) supports one common pipistrelle day roost and one soprano pipistrelle day roost.

3.5 Furthermore, the boundary habitats were considered to be of some value for foraging and commuting bats which are likely to act as a corridor, connecting areas of suitable habitat within the wider local landscape. During the emergence surveys low levels of passing activity from common pipistrelle, soprano pipistrelles and Noctule *Nyctalus noctule* were recorded. As a whole, the site is considered to have low suitability for foraging and commuting bats as more suitable areas exist in the wider landscape.

4.0 Impacts Mitigation and Enhancement Measures

Assessment of Bat Usage

- 4.1** Based upon the information from the surveys undertaken, the site was found to support one common pipistrelle and one soprano pipistrelle day roosts.
- 4.2** Roosts identified in the building (common pipistrelle and soprano pipistrelle day roosts) are considered to be of low conservation status as per the Bat Mitigation Guidelines (Reason and Wray, 2023). As a whole, the site is considered to be of up to **local** importance for roosting bats.

Construction Phase Impacts

- 4.3** Without mitigation, the construction works could disturb, kill or injure bats, which are offences under the Conservation of Habitats and Species Regulations (2019). This is considered an adverse effect at the **local** level.
- 4.4** There is also potential for the bat assemblage currently utilising the site for foraging and commuting to be adversely affected through increases in artificial lighting and habitat loss during the construction phase. Impacts could disrupt dark corridors present along garden boundaries and amongst tree canopies within and surrounding the site and could lead to abandonment of linked roosts, which would constitute an adverse effect at the site level. Disturbance to roosting bats (both directly and indirectly) is an offence under UK and EU legislation.

Occupation Phase Impacts

- 4.5** During the occupation phase, there is potential for indirect effects through increased light levels which could result in the abandonment of foraging and commuting pathways, as well as linked roosts, which would constitute an adverse effect at the site level. Disturbance to roosting bats (both directly and indirectly) is an offence under UK and EU legislation.

Mitigation – Licensing

- 4.6** A Natural England issued mitigation licence will be required to carry out the proposed works. Until the licence is received, the below must strictly be followed:
 - No construction, demolition or alteration works should take place to Building 1.
 - No new artificial light shall be directed upon any of the boundary vegetation or Building 1.

Mitigation – Design

- 4.7** Natural England will further determine the exact mitigation design during the licensing process. The following is guidance on the mitigation considered to be required.
- 4.8** As it is not considered feasible to retain the existing roosts in-situ post-development, compensatory roosts will need to be provided. This mitigation is expected to include the installation of two bat boxes. One integrated bat box will be built within the fabric of the building

such as the Vivara Pro Build-in WoodStone Bat Box. It is proposed that this integrated bat box will be installed on the northern elevation close to the eves of the completed building.

- 4.9** A second bat box will be put in place on a tree to be retained before the commencement of construction and destruction of existing roosts to act as an interim roosting opportunity and left in situ in perpetuity thereafter to provide additional roosting resources for bats. This could comprise of one 2F Schwegler General purpose bat box or similar.
- 4.10** Boxes will be located with appropriate connectivity to the wider landscape. Boxes should be sited at a minimum height of 3m away from artificial light sources, with orientations ranging from south to north facing to provide a range of micro-climatic conditions suitable for individual torpid bats as well as active maternity groups. Care should be taken to ensure surrounding branches do not block the flight path to the box or provide opportunity for predators to access the box (e.g. cats). A plan showing the proposed bat box locations is provided in Appendix 5.

Mitigation – Exclusion & De-featuring

- 4.11** This work can only begin once the Natural England licence is received. Given that the roosts are considered to be non-breeding summer roosts there are no seasonal constraints to the timing of the works as per the Bat Mitigation Guidelines (Reason and Wray, 2023). The contractor will have a site meeting with the named ecologist ahead of works, where the ecologist will brief the workers on safe methods of working with bats and will present toolbox talks.
- 4.12** Prior to works commencing, the ecologist will carry out an inspection of all the roosting features within the building to search for any roosting bats using torches, inspection cameras, and ladders, as appropriate. If a bat is found, the bat will be taken by hand (by the ecologist) and put into a ventilated holding box or bat holding bag. Any collected bats will be put into the pre-erected bat box on a retained tree, with access points stopped off until the end of the working day or for at least 30 minutes to allow the bat to settle and reduce the risk of them leaving and day-flying (when they would be at risk from predation).
- 4.13** If any roosting bats are located and cannot be safely extracted, features will be fitted with exclusion devices, to allow the bats to leave of their own accord overnight while preventing re-entry the following dawn. If exclusion is not possible, a 5m works exclusion zone will be put in place to allow the bat to leave overnight and the roost then sealed. This inspection will be undertaken each morning until all bat roosting features have been removed or sealed.
- 4.14** De-featuring of roosts and potential roosts will be undertaken under the supervision of an ecologist, avoiding periods of cold weather, high winds or heavy rain. Immediately after roosting features have been fully inspected, they will be blocked by suitable materials such as mortar to fill gaps between bricks, timber to block gaps between timbers and brick work, or steel mesh if required. The ecologist will be provided with safe access throughout the building so that they can observe the builders at work to ensure compliance and can get access if a bat is found.

4.15 In the unlikely event that bats are injured during works, the BCT helpline will be called (0345 1300 228) to organise care by a bat volunteer. The licensee commits to paying for reasonable expenses incurred by the carer and if necessary, veterinary bills.

Mitigation – Habitat & Lighting

4.16 It is unlikely that the habitats on site represent the core foraging areas for the bats roosting within the current building on site; more likely the vegetated gardens and trees around the site are used briefly for foraging near the roost while it is still partially light, then for dispersal into the wider landscape where more suitable habitats, e.g. woodland and riparian habitats, are available.

4.17 Site lighting around key features such as the boundaries likely to be used by foraging or commuting bats (such as the treeline to the west of the site) should be avoided during works. If lighting is necessary in these areas, then there are a number of ways to minimise the effect of lighting on bats. The following mitigation strategies have been taken from the Institution of Lighting Professionals and Bat Conservation Trust's Guidance Note 08/23 Bats and Artificial Lighting at Night (2023) and other referenced sources:

- In general, light sources should not emit ultraviolet light to avoid attracting insects and thus potentially reducing numbers in adjacent areas, which bats may use for foraging. Metal halide and fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum (ideally <2700 Kelvin) should be adopted to reduce blue light components. Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls of similar to minimise upward light spill) to delineate path edges.
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance.
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered.
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt.
- Where appropriate, external security lighting should be set on motion-sensors and set to as short as possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate.
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand.
- The use of bollard or low-level downward-directional luminaires is strongly discouraged; they should only be considered in specific cases.
- Only if all other options have been explored, then accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only where it is needed.

Mitigation – Monitoring

4.18 The amount, timing and survey effort dedicated to post-construction monitoring will ultimately be determined through the licencing process. However, as a guide this could include one site visit post-construction to ensure compliance of the integrated bat box. Continued monitoring is not considered to be required given the low value roosts of common and widespread species that have been impacted as per current guidance (Reason and Wray, 2023).

Residual Effects

4.19 With the above mitigation in place, construction impacts are predicted to be reduced to **negligible**.

4.20 With the implementation of the above mitigation measures, it is predicted that the residual effects upon bat populations will be **negligible**.

5.0 Conclusions

5.0

- 5.1** The proposals to the residential building at 25 St Martins Approach, Ruislip, Middlesex has been assessed for this potential to support roosting bats. Further ecological assessments and surveys have been undertaken following current guidance which identified one soprano pipistrelle day roost and one common pipistrelle day roost.
- 5.2** Through incorporation of the above mitigation and enhancements, it is considered that impacts to roosting bats can be fully mitigated against the proposals in line with current wildlife legislation and chapter 15 of the NPPF (MHCLG, 2024).

6.0 References

Bat Conservation Trust (2016) *Core Sustenance Zones: Determining Zone Size*. [Online]. Available at: <https://www.bats.org.uk/our-work/landscapes-for-bats/core-sustenance-zones>

CIEEM (2017a) *Guidelines on Ecological Report Writing 2nd Edition*. Chartered Institute of Ecology and Environmental Management: Winchester.

CIEEM (2022) *Code of Professional Conduct*. Chartered Institute of Ecology and Environmental Management: Winchester.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal. Version 1.2 – Updated April 2022*. Chartered Institute of Ecology and Environmental Management: Winchester.

Reason, P.F. and Wray, S (2023) *UK Bat Mitigation Guidelines: A guide to impact assessment, mitigation and compensation for developments affecting bats*. Chartered Institute of Ecology and Environmental Management, Ampfield.

Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th Edition*. London: The Bat Conservation Trust.

MHCLG (2023) Ministry for Housing and Communities and Local Government *National Planning Policy Framework*. [Online]. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Gunnell, K., Grant, G. and Williams, C. (2012) *Landscape and Urban Design for Bats and Biodiversity*. Bat Conservation Trust.

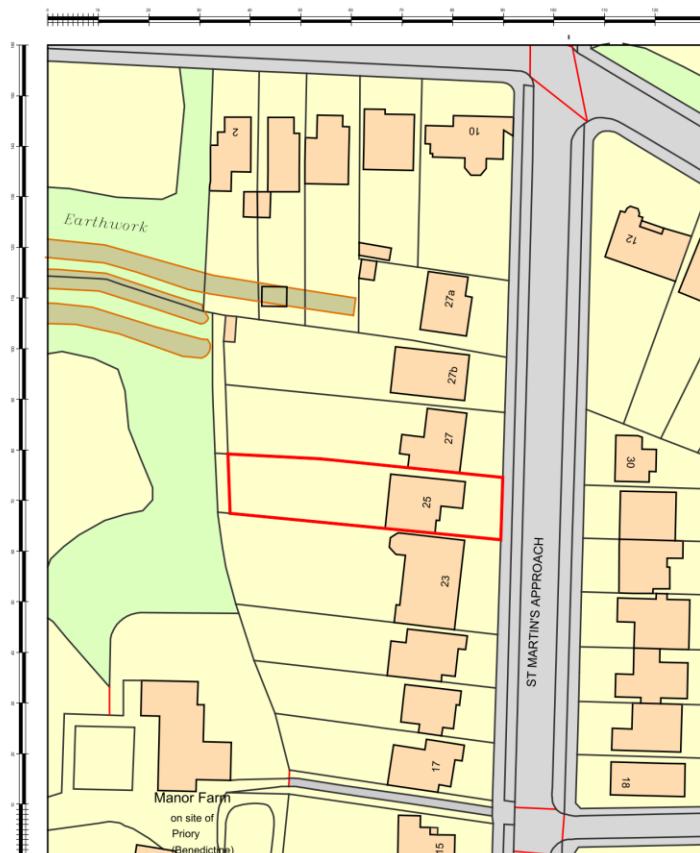
Institution of Lighting Professionals (2023) *Guidance Note 08/23: Bats and Artificial Lighting at Night*. Institution of Lighting Professionals: Warwickshire.

Jones, J. (2000) *Impact of Lighting on Bats*. Bat Conservation Trust: London.

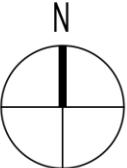
London Borough of Bromley (2019) Bromley Local Plan Adopted January 2019

Stone, E.L., Jones, G., Harris, S. (2012) *Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats*. Glob Change Biol. 18, 2458-2465.

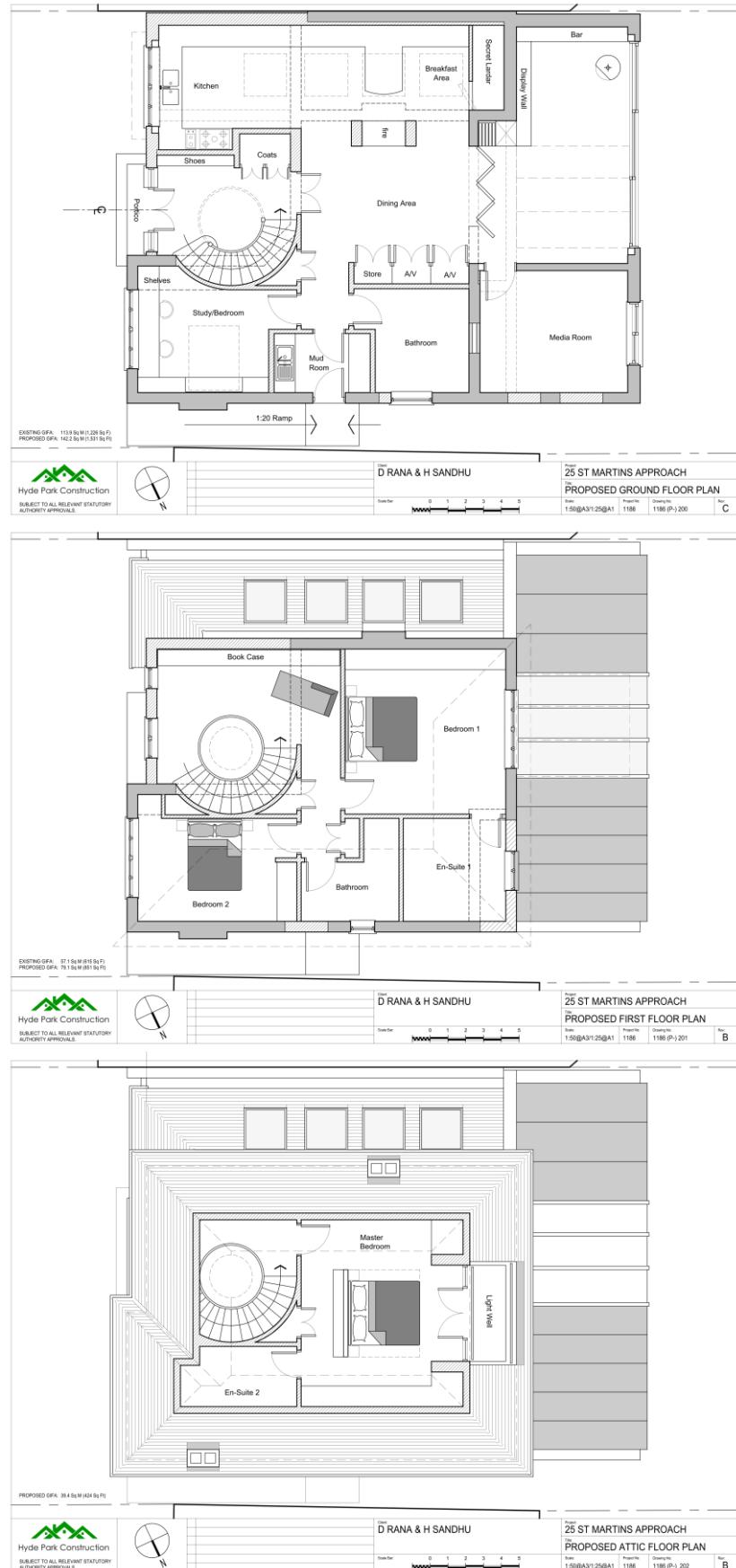
Appendix 1: Site Location Plan



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 Hyde Park Construction		Client: D RANA & H SANDHU Project: 25 ST MARTINS APPROACH Title: LOCATION PLAN
SUBJECT TO ALL RELEVANT STATUTORY AUTHORITY APPROVALS.	Scale: 1:1250@A4	Project No: 1186

Appendix 2: Proposed Plan

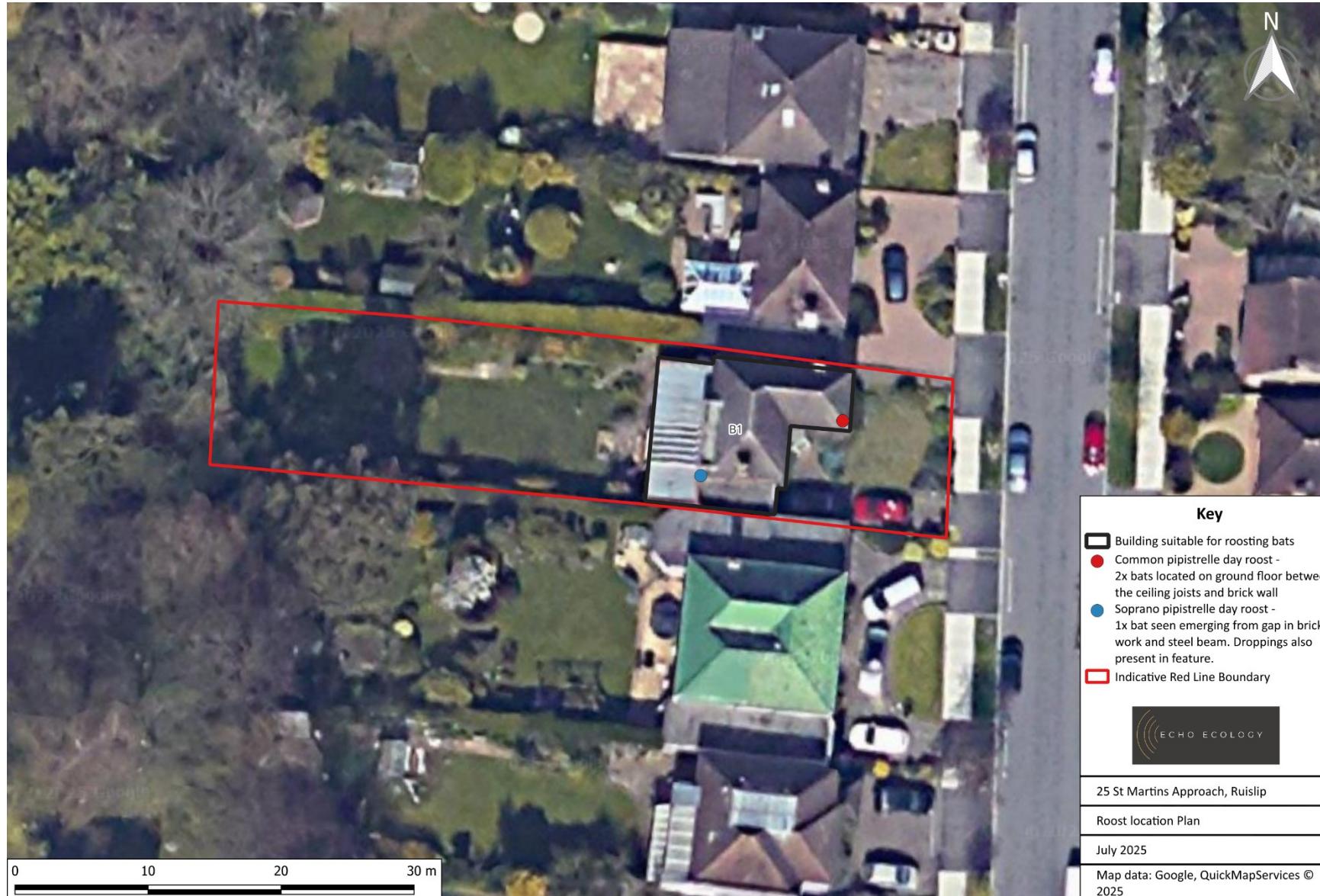


Appendix 3: Survey Results

Surveyor Location Plan



Roost Location Plan



Appendix 4: Site Photographs

Photo 1: East elevation / front of Building 1



Photo 2: West elevation / rear of Building 1



Photo 3: Interior first floor



Photo 4: Internal roof structure



Photo 5: Ground floor as viewed from the west



Photo 6: Location of common pipistrelle day roost. Ground floor, east side of the building (circled in blue).



Photo 7: Location of common pipistrelle day roost. Ground floor, east side of the building (circled in blue).



Photo 8: Two common pipistrelles between timber and brick wall as per Photo 6 (photo taken by others).



Photo 9: Location of soprano pipistrelle day roost, in crack of brick work and steel beam (circled in blue).



Photo 10: Picture of droppings from the soprano pipistrelle roost (Photo 9) taken using an inspection camera.



Photo 11: Bat droppings identified below the historic common pipistrelle roost



Photo 12: View from Surveyor Position 2 at darkest point on survey (using Canon XA11/15)



Photo 13: View from Surveyor Position 1 at darkest point on survey (using Panasonic VX990)



Appendix 5: Location of Bat Compensation Measures (Bat Boxes)

